



**General Certificate of Education (A-level)
June 2011**

Science in Society

SCIS4

(Specification 2400)

Unit 4: Case study of a scientific issue

Report on the Examination

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General Comments

This was the second sitting of this paper, where preliminary release material is used. In general the standard of scripts was good with nearly all candidates able and willing to tackle the majority of the questions. There was evidence of sound preparation and study of the preliminary materials by most candidates from most centres.

Most candidates coped well with numbering their questions in the boxes in answer booklet. Candidates should be advised to leave space between answers in their booklets as this leaves them space to come back and add information should they have surplus time. Candidates leaving space in order to come back to an item or being prepared to answer questions in a non-numerical order to play to their strengths.

All marks on the paper were accessed by at least some of the candidates. Most scoring at least some of the available marks on each question attempted. The paper appeared to be both accessible and discriminating enabling all to have a go and the most able to shine.

There was some evidence that candidates performing less well found it difficult to pace themselves. Several provided lengthy answers to earlier questions worth only 1 or 2 marks and then ran out of time for the two 12 mark extended answer questions in section. Candidates accessing the higher grades generally tackled both Q14 and 15 demonstrating the different skills being sought.

Section A

Question 1 & 2

In general question 1 was well answered but many candidates included the answer to question 2. They then struggled to provide a novel answer for question 2 and scored more poorly than their knowledge would suggest

Question 3 & 4

Every candidate attempted these two questions with the vast majority being able to correctly identify 2 quotations from Sources to support the view points.

Question 5 & 6

Nearly all candidates could successfully identify further investigations and suggest why they would be useful. However, the 'norms of science' was a poorly understood term and a third of candidates either did not attempt the question or scored 0 on this item. Specification section 3.5.2 *Science as a human activity* covers the majority of points expected as responses to this question.

Question 7 & 8

Candidates demonstrated a good understanding of the information in **Source E**. These items proved to be good discriminators with the most able scoring 7 or 8 marks and the least able at least picking up 1 or 2 relevant points. The point often omitted was that children inherit their genes from their parents and that a relative of someone who has left DNA at a crime scene will share more of their genes than an unrelated member of the public.

Question 9

Some candidates did well to appreciate the affect of the different population sizes in enabling fewer STR matches to be used in the UK compared with the USA . However, many got into a muddle trying to explain the direction of the affect and tripped up over more, less, larger , fewer etc..

Question 10

A large number of candidates seem to equate peer review with plagiarism. Some of the more able candidates could appreciate that a patent enables the scientist and their institution to benefit financially from their work whilst protecting the intellectual property. However, very few appreciated that permission can be granted for use of work under patent and that peer – reviewed work must always be cited by other researchers who use these ideas in the future.

Question 11, 12 & 13

Source F was well understood and these items produced clear responses from nearly all candidates. However, a significant number did not tackle question 13 at all; whether through misunderstanding of the question or from running out of time is difficult to ascertain.

Section B

A significant amount of candidates did not attempt question 14 and even more did not get to question 15. Candidates should be encouraged to look through the whole paper and to pick the questions which will enable them to maximise gaining marks. As long as they label the items accurately it is perfectly acceptable to answer section B earlier since these questions are worth 40% of the available marks for the paper. Candidates that wrote a brief plan for these items enabled them to score some marks even if they did not complete their answers.

Question 14

This item was designed to test the candidates' ability to synthesize information from a number of sources and write in a style for a particular audience. Many candidates relied heavily on **Source A** but a few forgot to reference this. Unattributed copying is unsuitable in an A2 examination but the majority were able to express ideas in their own words. The bullet points acted as a scaffold for candidates and most remembered to include something on each section. It was pleasing to see the balance displayed by the higher scoring candidates attempting to be fair to the juror.

Question 15

There were some outstanding arguments seen in response to this item with over a quarter of candidates scoring in the top band of marks. The very best answers used a good range of evidence from all the sources. A clear conclusion was drawn with counter arguments considered. Many candidates clearly felt passionate about this issue and lower scoring individuals often made valid ethical points.

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